

# MIAMI-DADE COUNTY PRODUCT CONTROL SECTION

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www.miamidade.gov/economy

# DEPARTMENT OF REGULATORY AND ECONOMIC RESOURCES (RER) BOARD AND CODE ADMINISTRATION DIVISION

# **NOTICE OF ACCEPTANCE (NOA)**

Soprema, Inc. 310 Quadral Drive Wadsworth, OH 44281

#### **SCOPE:**

This NOA is being issued under the applicable rules and regulations governing the use of construction materials. The documentation submitted has been reviewed and accepted by Miami-Dade County RER - Product Control Section to be used in Miami Dade County and other areas where allowed by the Authority Having Jurisdiction (AHJ).

This NOA shall not be valid after the expiration date stated below. The Miami-Dade County Product Control Section (In Miami Dade County) and/or the AHJ (in areas other than Miami Dade County) reserve the right to have this product or material tested for quality assurance purposes. If this product or material fails to perform in the accepted manner, the manufacturer will incur the expense of such testing and the AHJ may immediately revoke, modify, or suspend the use of such product or material within their jurisdiction. RER reserves the right to revoke this acceptance, if it is determined by Miami-Dade County Product Control Section that this product or material fails to meet the requirements of the applicable building code.

This product is approved as described herein, and has been designed to comply with the Florida Building Code including the High Velocity Hurricane Zone of the Florida Building Code.

#### **DESCRIPTION:** Soprema Self-Adhered Modified Bitumen Roofing Systems over Steel Decks.

**LABELING:** Each unit shall bear a permanent label with the manufacturer's name or logo, city, state and following statement: "Miami-Dade County Product Control Approved", unless otherwise noted herein.

**RENEWAL** of this NOA shall be considered after a renewal application has been filed and there has been no change in the applicable building code negatively affecting the performance of this product.

**TERMINATION** of this NOA will occur after the expiration date or if there has been a revision or change in the materials, use, and/or manufacture of the product or process. Misuse of this NOA as an endorsement of any product, for sales, advertising or any other purposes shall automatically terminate this NOA. Failure to comply with any section of this NOA shall be cause for termination and removal of NOA.

**ADVERTISEMENT:** The NOA number preceded by the words Miami-Dade County, Florida, and followed by the expiration date may be displayed in advertising literature. If any portion of the NOA is displayed, then it shall be done in its entirety.

**INSPECTION:** A copy of this entire NOA shall be provided to the user by the manufacturer or its distributors and shall be available for inspection at the job site at the request of the Building Official.

This NOA consists of pages 1 through 25.

The submitted documentation was reviewed by Jorge L. Acebo.

MIAMI-DADE COUNTY
APPROVED

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## **ROOFING SYSTEM APPROVAL**

<u>Category:</u> Roofing

Sub-Category: Modified Bitumen

Material:SBSDeck Type:SteelMaximum Design Pressure:-60 psf.

# TRADE NAMES OF PRODUCTS MANUFACTURED OR LABELED BY APPLICANT: TABLE 1

Dwaduat	<u>Dimensions</u>	Test Specification	Product  Description
<b>Product</b>	·	_	
Colvent SA	39" x 49" (1.5 sq.)	ASTM D6163	Fiberglass reinforced, modified bitumen membrane with 1" wide factory applied self- adhering strips on back side
Elastophene GR	39" x 33' (1 sq.)	ASTM D6163	Fiberglass reinforced modified bitumen membrane with fire retardants, sanded on the bottom and mineral granules on the top. Applied in hot asphalt, cold adhesive or ribbon stripping.
Elastophene LS FR GR	39" x 33' (1 sq.)	ASTM D6163	Fiberglass reinforced modified bitumen membrane with fire retardants, sanded on the bottom and mineral granules on the top. Applied in hot asphalt, cold adhesive or ribbon stripping.
Elastophene FR GR	39" x 33' (1 sq.)	ASTM D6163	Fiberglass reinforced modified bitumen membrane with fire retardants, sanded on the bottom and mineral granules on the top. Applied in hot asphalt, cold adhesive or ribbon stripping.
Elastophene FR+ GR	39" x 33' (1 sq.)	ASTM D6163	Fiberglass reinforced modified bitumen membrane with fire retardants, sanded on the bottom and mineral granules on the top. Applied in hot asphalt, cold adhesive or ribbon stripping.
Elastophene HS FR GR	39" x 33' (1 sq.)	ASTM D6162	Woven fiberglass/polyester composite reinforced modified bitumen membrane with fire retardants, sanded on the bottom and mineral granules on the top. Applied in hot asphalt, cold adhesive or ribbon stripping.
Elastophene Flam GR	39" x 33' (1 sq.)	ASTM D6163	Fiberglass reinforced modified bitumen membrane with fire retardants, a plastic burn-off film on the bottom and mineral granules on the top. Applied by heat welding.
Elastophene Flam LS FR GR	39" x 33' (1 sq.)	ASTM D6163	Fiberglass reinforced modified bitumen membrane with fire retardants, a plastic burn-off film on the bottom and mineral granules on the top. Applied by heat welding.
Elastophene Flam FR GR	39" x 33' (1 sq.)	ASTM D6163	Fiberglass reinforced modified bitumen membrane with fire retardants a plastic burn-off film on the bottom and mineral granules on the top. Applied by heat welding.



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Elastophene Flam FR+ GR	39" x 33' (1 sq.)	ASTM D6163	Fiberglass reinforced modified bitumen membrane with fire retardants a plastic burn-off film on the bottom and mineral granules on the top. Applied by heat welding.
Elastophene Flam HS FR GR	39" x 33' (1 sq.)	ASTM D6162	Woven fiberglass composite reinforced modified bitumen membrane with fire retardants, a plastic burn-off film on the bottom and mineral granules on the top. Applied by heat welding or ribbon stripping (after removal of plastic burn-off film).
Soprafix [S]	39" x 33' (1 sq.)	ASTM D6164	Non-woven polyester reinforced modified bitumen membrane. Applied by mechanical attachment.
Soprafix Base 612	39" x 33' (1 sq.)	ASTM D6164	Non-woven polyester reinforced modified bitumen membrane. Applied by mechanical attachment.
Soprafix [X]	39" x 33' (1 sq.)	ASTM D6164	Non-woven polyester reinforced modified bitumen membrane. Applied by mechanical attachment.
Soprafix Base 614	39" x 33' (1 sq.)	ASTM D6164	Non-woven polyester reinforced modified bitumen membrane. Applied by mechanical attachment.
Sopralene 180 FR GR	39" x 33' (1 sq.)	ASTM D6164	Non-woven polyester reinforced modified bitumen membrane with fire retardants a sanded bottom and a mineral granules top. Applied in hot asphalt, cold applied adhesive or ribbon stripping (after removal of plastic burn-off film).
Sopralene 250 FR GR	39" x 33' (1 sq.)	ASTM D6164	Non-woven polyester reinforced modified bitumen membrane with fire retardants a sanded bottom and a mineral granules top. Applied in hot asphalt, cold applied adhesive or ribbon stripping (after removal of plastic burn-off film).
Sopralene Flam 180 GR	39" x 33' (1 sq.)	ASTM D6164	Non-woven polyester reinforced modified bitumen membrane with a plastic burn-off film on the bottom and mineral granules on the top. Applied by heat welding or ribbon stripping (after removal of plastic burn-off film).
Sopralene Flam 180 FR GR	39" x 33' (1 sq.)	ASTM D6164	Non-woven polyester reinforced modified bitumen membrane with fire retardants a plastic burn-off film on the bottom and mineral granules on the top. Applied by heat welding or ribbon stripping (after removal of plastic burn-off film).
Sopralene Flam 250 FR GR	39" x 33' (1 sq.)	ASTM D6164	Non-woven polyester reinforced modified bitumen membrane with fire retardants a plastic burn-off film on the bottom and mineral granules on the top. Applied by heat welding or ribbon stripping (after removal of plastic burn-off film).



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Sopralene Flam 180 FR+ GR	39" x 33' (1 sq.)	ASTM D6164	Non-woven polyester reinforced modified bitumen membrane with fire retardants a plastic burn-off film on the bottom and mineral granules on the top. Applied by heat welding or ribbon stripping (after removal of plastic burn-off film).
Sopralene Flam 250 FR+ GR	39" x 33' (1 sq.)	ASTM D6164	Non-woven polyester reinforced modified bitumen membrane with fire retardants a plastic burn-off film on the bottom and mineral granules on the top. Applied by heat welding or ribbon stripping (after removal of plastic burn-off film).
Sopralast 50 TV Alu	various	ASTM D6298	Fiberglass reinforced modified bitumen sheeting faced with aluminum foil. Applied by heat welding of ribbon stripping (after removal of plastic burn-off film).
Soprastar Flam	39" x 33' (1 sq.)	ASTM D6162	Polyester reinforced SBS modified bitumen membrane with a plastic burn-off film on the bottom side and a reflective white top surface. Applied by heat welding.
Soprastar Stick	39" x 33' (1 sq.)	ASTM D6162	Polyester reinforced SBS modified bitumen membrane with a release film covered self-adhering bottom side and a reflective white top surface.
Sopralene Stick	39" x 33' (1 sq.)	ASTM D6164	Self-adhered, polyester reinforced membrane with a release film on the bottom and a sanded top.
Sopralene Flam Stick	39" x 33' (1 sq.)	ASTM D6164	Self-adhered, polyester reinforced membrane with a release film on the bottom and a plastic burn-off film on the top.
Elastophene Stick FR GR	39" x 33' (1 sq.)	ASTM D6163	Self-adhered, granule surfaced, fiberglass reinforced membranes.
Elastophene Stick HR FR GR	39" x 33' (1 sq.)	ASTM D6164	Self-adhered, granule surfaced, polyester reinforced membranes.
Elastocol 500	various	ASTM D41	Asphalt primers.
Elastocol Stick	various	ASTM D41	Asphalt primers.
ALSAN Flashing <sup>TM</sup>	1.25 gallon pail or 3.75 gallon pail	Proprietary	One part polyurethane/bitumen resin, moisture cure compound.
ALSAN Polyfleece	4", 8" or 39" wide by 50' long	Proprietary	Non-woven polyester reinforcement used in the ALSAN Flashing system.
SBS Elastic Cement	5 gallon pail	Proprietary	Elastomeric bitumen based mastic compound.
Soprawalk	39" x 26' (3/4 sq.)	Proprietary	Non-woven polyester reinforced modified bitumen membrane with a sanded bottom and mineral granules on the top. Applied by hot asphalt, cold adhesive or ribbon stripping.
FM Adhesive	5 gallon pail, 55 gallon drum or 350 gallon tote	Proprietary	Plastomeric bitumen based cold adhesive.



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FM Adhesive (VOC)	5 gallon pail, 55 gallon drum or 350 gallon tote	Proprietary	Elastomeric bitumen based cold adhesive.
COLPLY Modified Adhesive	5 gallon pail, 55 gallon drum or 350 gallon tote	Proprietary	Elastomeric bitumen based cold adhesive.
Soprastar Adhesive	5 gallon pail or 55 gallon drum	Proprietary	SBS modified bitumen based cold adhesive.

# **APPROVED INSULATIONS:**

#### TABLE 2

<b>Product Name</b>	<b>Product Description</b>	Manufacturer (With Current NOA)
ACFoam-II	Polyisocyanurate foam insulation	Atlas Roofing Corporation
Sopra-ISO s	Polyisocyanurate foam insulation	Soprema, Inc.
ISO 95+ GL	Polyisocyanurate foam insulation	Firestone Building Products Company, LLC
H-Shield	Polyisocyanurate foam insulation	Hunter Panels LLC
Sopra-ISO r	Polyisocyanurate foam insulation	Soprema, Inc.
M-Shield	Polyisocyanurate foam insulation	Soprema, Inc.
ENRGY 3	Polyisocyanurate foam insulation	Johns Manville Corp.
Multi-Max FA-3	Polyisocyanurate foam insulation	RMax Operating, LLC
SECUROCK Gypsum-Fiber Roof Board	Gypsum board	USG Corp.
Perlite Insulation	Perlite insulation board	Generic
DensDeck Sopraboard	Water resistant gypsum board Mineral fortified asphaltic cored coverboard	Georgia Pacific Gypsum LLC Soprema, Inc.

# **APPROVED FASTENERS:**

#### TABLE 3

Fastener Number	Product Name	Product Description	Dimensions	Manufacturer (With Current NOA)
1.	Soprema #12, #14 & #15 Fasteners	Fasteners for membrane or insulation attachment to wood, steel or concrete decks.		Soprema, Inc.
2.	Soprema #12 DP, #14 MP, #15 HD Fastener	Insulation and membrane fasteners	Various	Soprema, Inc.
3.	Soprema 2" Seam Plate	Insulation and membrane fasteners	2" round	Soprema, Inc.
4.	Soprema 3" Round Insulation Plate	Insulation and membrane fasteners	3" round	Soprema, Inc.
5.	Soprafix 2" SB Stress Plate	Seam plates	2" round	Soprema, Inc.



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# **APPROVED FASTENERS:**

#### TABLE 3

		I ADLE 3		
Fastener Number	Product Name	Product Description	Dimensions	Manufacturer (With Current NOA)
6.	Dekfast #12, #14 & #15 HS	Insulation fasteners		SFS Intec, Inc.
7.	Dekfast Galvalume Steel Hex Plate	Galvalume AZ50 steel plates	2 <sup>7</sup> / <sub>8</sub> " x 3 <sup>1</sup> / <sub>4</sub> "	SFS Intec, Inc.
8.	Dekfast Galvalume Steel 3" Round	Galvalume AZ50 steel plates	3" round	SFS Intec, Inc.
9.	Dekfast Steel Batten Bar	Galvalume AZ50 steel bars		SFS Intec, Inc.
10.	Trufast #14 HD, #15 EHD Fastener	Insulation fasteners for wood, steel and concrete		Altenloh, Brinck & Co. U.S., Inc.
11.	Trufast 2" Barbed Metal Seam Plate	Seam plates	2' round	Altenloh, Brinck & Co. U.S., Inc.
12.	TruFast 2" Metal Seam Plate	Seam plates	2" diameter	Altenloh, Brinck & Co. U.S., Inc.
13.	Trufast 3" Metal Insulation Plate	Galvalume AZ50 steel plates	3" round	Altenloh, Brinck & Co. U.S., Inc.
14.	Trufast Flat Batten Bar	Galvalume AZ55 steel batten bars		Altenloh, Brinck & Co. U.S., Inc.
15.	Trufast #12 DP Fastener	Modified DP carbon steel fasteners	Various	Altenloh, Brinck & Co. U.S., Inc.
16.	OMG 3" Galvalume Steel Plate	Galvalume coated steel plates	3" round	OMG, Inc.
17.	#12, #14 & #15 Roofgrip	Insulation fasteners	Various	OMG, Inc.
18.	OMG 3 in. Round Metal Plates	Galvalume AZ50 steel plates	3" round	OMG, Inc.
19.	OMG Heavy Duty	Insulation and membrane fasteners	Various	OMG, Inc.
20.	OMG 2" Barbed Plate	Round galvanized steel stress plates	2" Round	OMG, Inc.
21.	Flat Bottom Metal Plate		3" square	OMG, Inc.
22.	AccuTrac Hextra	Carbon steel fasteners	Various	OMG, Inc.
23.	Recessed Metal Plate	Galvalume steel plates	3" square	OMG, Inc.
24.	Polymer Batten Strip	Modified polymer batten bars		OMG, Inc.



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# **APPROVED SURFACING/COATING OPTIONS:**

#### TABLE 4

Chosen components must be applied according to manufacturer's application instructions. Any coating, listed below, used as a surfacing, must be listed within a current NOA.

System Number	Manufacturer	Application
1.	Generic	Gravel applied at 400 lbs./sq., adhered with flood coat of asphalt at 60 lbs./sq.
2.	Generic	Slag applied at 300 lbs./sq., adhered with flood coat of asphalt at 60 lbs./sq.
3.	Soprema, Inc.	Gravel applied at 400 lbs./sq., adhered with FM Adhesive, FM Adhesive (VOC), COLPLY Modified Adhesive or Soprastar Adhesive at 4 gal/sq.
4.	Karnak Corporation	Karnak #97 Fibrated Aluminum Roof Coating applied at an application rate of 1.5 gal/sq.
5.	Soprema, Inc.	Cural Aluminizer applied at an application rate of 2 gal/sq.
6.	Thermo Manufacturing Systems, LLC	Super Prep Roof Coating applied in two coats at an application rate of 1.5 gal/sq./coat.
7.	United Coatings Manufacturing Company	Roof Mate Coating, applied in one base coat at a rate of 1.5 gal/sq., and one finish coat at a rate of 1.5 gal/sq.
8.	Insulating Coatings Corporation	Astec 2000 Finish Coat applied in two base coats at a rate of 0.75 gal/sq./coat and two finish coats at a rate of 0.75 gal/sq./coat.
9.	Henry Company	HE280DC White Elastomeric Roof Coating applied in two coats at an application rate of 1 gal/sq./coat.
10.	National Coating Corp.	Acryshield® A500 applied in two coats at an application rate of 1 gal/sq./coat.
11.	Soprema, Inc.	R-Nova Roof Coating
12.	Generic	Semi-ceramic coated colored granules.



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# **EVIDENCE SUBMITTED:**

Test Agency/Identifier	<u>Report</u>	<u>Name</u>	<b>Date</b>
Factory Mutual Research Corp.	3002351	FM 4470	02/28/03
	3029098	FM 4470	10/25/07
	3023749	FM 4470	09/28/06
	3026964	FM 4470	07/25/07
	3045101	FM 4470	11/05/12
Exterior Research & Design, LLC	2757.02.05	ASTM D6163/D6164	02/03/05
	2761.09.03	TAS 114	09/02/03
Underwriters Laboratories	R11436	UL 790	06/18/13
Trinity   ERD	S6740.11.07	ASTM D 6163	11/02/07
	S12370.03.09-1	ASTM D 6164	03/06/09
	S12370.03.09-2	ASTM D 6164	03/06/09
	S12370.03.09-3	ASTM D 6162	03/06/09
	S11440.06.10	ASTM D4798 & TAS 110	06/01/10
	S11440.01.11-R1	ASTM D6164	06/07/12
	S11440.11.10-4	ASTM D2178	11/17/10
	S11440.11.10-3-R1	ASTM D4601	01/30/13
	S11440.12.10-1-R1	ASTM D6163	06/07/12
	S32700.12.10	ASTM D6162	12/15/10
	S35860.12.11-1	ASTM D2178	12/12/11
	S35860.12.11-2	ASTM D4601	12/12/11
	S35860.05.12-1-R1	ASTM D6163	06/07/12
	S35860.05.12-2-R1	ASTM D6164	06/07/12
	S35860.05.12-3	ASTM D6164	05/08/12
	C8500SC.11.07-R1	TAS 117	08/07/09
PRI Construction Materials	SOP-049-02-01	ASTM D1644 ASTM D2196	05/31/12
Technologies, LLC	SOP-043-02-01	ASTM D4601	02/27/12
	SOP-042-02-01	ASTM D4601	02/27/12
	SOP-041-02-01	ASTM D2178	02/27/12
	SOP-040-02-01	ASTM D2178	02/27/12
	SOP-010-02-01.03	TAS-138	07/26/11
	SOP-050-02-01	ASTM D3019	07/12/12



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#### **APPROVED ASSEMBLIES:**

**Membrane:** SBS

**Deck Type 2I:** Steel, Insulated

**Deck Description:** 18-22 ga. Steel deck is secured to min. <sup>1</sup>/<sub>4</sub>" thick support

System Type B(1): Base layer of insulation mechanically attached, top layer adhered with approved

adhesive.

All General and System Limitations apply.

**Vapor Barrier:** FM approved Self-Adhering, Cold-Applied, Hot-Applied or Torch-Applied base

(Optional) sheets

One or more layers of any of the following insulations.

Base Insulation Layer	<b>Insulation Fasteners</b>	Fastener
	(Table 3)	Density/ft <sup>2</sup>
H-Shield, Sopra-ISO r, M-Shield, ACFoam-II, Sopra-ISO s		
Minimum 1.5" thick	1, 6, 17, 19, 22 with	$1:2 \text{ ft}^2$
	approved plates	

Note: Layer of insulation shall be mechanically attached with fasteners and density described above. Insulation panels listed are minimum sizes and dimensions; if larger panels are used the number of fasteners per board shall be increased maintaining the same fastener density. See Roofing Application Standard RAS 117 for fastening details.

Top Insulation Layer	Insulation Fasteners	Fastener
	(Table 3)	Density/ft <sup>2</sup>
DensDeck		
Minimum 1/4" thick	N/A	N/A

Note: All insulation shall be adhered with hot asphalt full mop applied at a rate of 25 lbs./sq. or with High Velocity Insulation Adhesive II (HVIA-II), High Velocity Insulation Adhesive III (HVIA-III), High Velocity Insulation Adhesive PG applied in continuous ½" wide ribbons at a maximum spacing of 12" o.c. Please refer to Roofing Application Standard RAS 117 for insulation attachment. Insulations listed as base layer only shall be used only as base layers with a second layer of approved top layer insulation installed as the final membrane substrate.

**Primer:** Top Insulation layer shall be primed with ASTM D41 asphaltic primer or

Elastocol Stick applied at a rate of 1 gal/sq.

**Base Sheet:** One layer of Sopralene Stick or Sopralene Flam Stick\*, self-adhered

\*Requires heat welded ply or cap sheet.

Ply Sheet: None

**Membrane:** One layer of Soprastar Stick, Elastophene Stick HR FR GR, Elastophene Stick FR

GR, self-adhered to sand surfaced base or ply membrane primed with Elastocol

500 or Elastocol Stick.

Or



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One layer of Elastophene Flam GR, Elastophene Flam FR GR, Elastophene Flam LS FR GR, Elastophene Flam FR+ GR, Elastophene Flam HS FR GR, Soprastar Flam, Sopralene Flam 180 GR, Sopralene Flam 180 FR GR, Sopralene Flam 180 FR+ GR, Sopralene Flam 250 FR GR, Sopralene Flam 250 FR+ GR, Sopralast 50 TV Alu, heat welded

Or

One layer of Elastophene GR, Elastophene FR GR, Elastophene LS FR GR, Elastophene FR+ GR, Elastophene HS FR GR, Sopralene 180 FR GR, Sopralene 250 FR GR, adhered in hot asphalt at 25 lbs./sq. or applied in FM Adhesive, FM Adhesive (VOC), COLPLY Modified Adhesive or Soprastar Adhesive at a rate of

1.5 gal/sq. to sand surfaced base or ply membrane.

**Surfacing:** Surfacing is Optional on granular surfaced field cap membranes.

> Surfacing is Required for smooth or sanded surfaced field cap membranes. Refer to Underwriters Laboratories or Intertek Testing Services listings for

applicable fire classifications

Apply any coating listed in Table 4 above, or any Miami-Dade approved coating

system

**Maximum Design** 

**Pressure:** -45 psf. (See General Limitation #9.)



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**Deck Type 2I:** Steel, Insulated

**Deck Description:** 18-22 ga. Steel deck is secured to min. <sup>1</sup>/<sub>4</sub>" thick support

**System Type B(2):** Base layer of insulation mechanically attached, top layer adhered with approved

adhesive. Membrane fully adhered.

All General and System Limitations apply.

One or more layers of any of the following insulations.

Base Insulation Layer Insulation Fasteners Fastener (Table 3) Tensity/ft²

ACFoam-II, Sopra-ISO s, ENRGY 3, ISO 95+ GL

Minimum 1.5" thick 6 (#12 & #14), 17, 19, 1:2 ft<sup>2</sup>

10 (#14), 15 with approved plates

Top Insulation Layer Insulation Fasteners Fastener (Table 3) Density/ft<sup>2</sup>

SECUROCK Gypsum-Fiber Roof Board

Minimum ¼" thick N/A N/A

Note: All insulations shall be adhered with hot asphalt full mop applied at a rate of 25 lbs./sq. or with High Velocity Insulation Adhesive II (HVIA-II), High Velocity Insulation Adhesive III (HVIA-III), High Velocity Insulation Adhesive PG applied in continuous ¾" wide ribbons at a maximum spacing of 12" o.c. Please refer to Roofing Application Standard RAS 117 for insulation attachment. Insulations listed as base layer only shall be used only as base layers with a second layer of approved top layer insulation installed as the final membrane substrate.

**Primer:** Primed with ASTM D41 asphaltic primer applied at a rate of 0.75 gal/sq.

(Optional)

**Base Sheet:** One ply of Sopralene Stick or Colvent SA\*, self-adhered.

\*Requires primed substrate

Ply Sheet: None

**Membrane:** One layer of Soprastar Stick, Elastophene Stick HR FR GR, Elastophene Stick FR

GR, self-adhered to sand surfaced base or ply membrane primed with Elastocol

500 or Elastocol Stick.

Or

One layer of Elastophene Flam GR, Elastophene Flam FR GR, Elastophene Flam LS FR GR, Elastophene Flam FR+ GR, Elastophene Flam HS FR GR, Sopralene Flam 180 GR, Sopralene Flam 180 FR GR, Sopralene Flam 180 FR+ GR,

Sopralene Flam 250 FR GR, Sopralene Flam 250 FR+ GR, Soprastar Flam,

Sopralast 50 TV Alu, heat welded.

Or



NOA No.: 13-0205.04 Expiration Date: 12/31/14 Approval Date: 07/25/13 Page 11 of 25 **Membrane:** One layer of Elastophene GR, Elastophene FR GR, Elastophene LS FR GR,

(Cont.) Elastophene FR+ GR, Elastophene HS FR GR, Sopralene 180 FR GR, Sopralene

250 FR GR, adhered in hot asphalt at 25 lbs./sq. or applied in FM Adhesive. FM Adhesive (VOC). COLPLY Modified Adhesive or Soprastar Adhesive at a rate of

1.5 gal/sq.

**Surfacing:** Surfacing is Optional on granular surfaced field cap membranes.

Surfacing is Required for smooth or sanded surfaced field cap membranes. Refer to Underwriters Laboratories or Intertek Testing Services listings for

applicable fire classifications

Apply any coating listed in Table 4 above, or any Miami-Dade approved coating

system.

**Maximum Design** 

**Pressure:** -45 psf. (See General Limitation #9.)



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**Deck Type 2I:** Steel, Insulated

**Deck Description:** 18-22 ga. Steel deck is secured to min. <sup>1</sup>/<sub>4</sub>" thick support

**System Type C(1):** Membrane fully adhered over mechanically fastened insulation.

All General and System Limitations apply.

**Vapor Barrier:** FM approved Self-Adhering, Cold-Applied, Hot-Applied or Torch-Applied base

(Optional) sheets.

One or more layers of any of the following insulations.

Base Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft <sup>2</sup>
DensDeck		
Minimum 5/8" thick	N/A	N/A
Approved Perlite Minimum ¾" thick	N/A	N/A
H-Shield, Sopra-ISO r, M-Shield, ACFoam-II, Sopra-ISO s Minimum 1.4" thick	N/A	N/A
Middle Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft²
H-Shield, Sopra-ISO r, M-Shield, ACFoam-II, Sopra-ISO s		
Minimum 1.5" thick	1, 6, 17, 19, 22 with approved plates	1:2 ft <sup>2</sup>

Note: Layer of insulation shall be mechanically attached with fasteners and density described above. Insulation panels listed are minimum sizes and dimensions; if larger panels are used the number of fasteners per board shall be increased maintaining the same fastener density. See Roofing Application Standard RAS 117 for fastening details.

Top Insulation Layer	Insulation Fasteners	Fastener
	(Table 3)	Density/ft <sup>2</sup>
Sopraboard		
Minimum 1/8" thick	N/A	N/A

Note: All insulation shall be adhered with hot asphalt full mop applied at a rate of 25 lbs./sq. or with High Velocity Insulation Adhesive II (HVIA-II), High Velocity Insulation Adhesive III (HVIA-III), High Velocity Insulation Adhesive PG applied in continuous ½" wide ribbons at a maximum spacing of 12" o.c. Please refer to Roofing Application Standard RAS 117 for insulation attachment. Insulations listed as base layer only shall be used only as base layers with a second layer of approved top layer insulation installed as the final membrane substrate.

**Base Sheet:** One layer of Sopralene Stick or Sopralene Flam Stick\*, self-adhered

\*Requires heat welded ply or cap sheet.

Ply Sheet: None



NOA No.: 13-0205.04 Expiration Date: 12/31/14 Approval Date: 07/25/13 Page 13 of 25 Membrane:

One layer of Soprastar Stick, Elastophene Stick HR FR GR, Elastophene Stick FR GR, self-adhered to sand surfaced base or ply membrane primed with Elastocol 500 or Elastocol Stick.

Or

One layer of Elastophene Flam GR, Elastophene Flam FR GR, Elastophene Flam LS FR GR, Elastophene Flam FR+ GR, Elastophene Flam HS FR GR, Soprastar Flam, Sopralene Flam 180 GR, Sopralene Flam 180 FR GR, Sopralene Flam 180 FR+ GR, Sopralene Flam 250 FR GR, Sopralene Flam 250 FR+ GR, Sopralene Flam 250 FR GR, Sopralene Flam 250 FR

Or

One layer of Elastophene GR, Elastophene FR GR, Elastophene LS FR GR, Elastophene FR+ GR, Elastophene HS FR GR, Sopralene 180 FR GR, Sopralene 250 FR GR, adhered in hot asphalt at 25 lbs./sq. or applied in FM Adhesive, FM Adhesive (VOC), COLPLY Modified Adhesive or Soprastar Adhesive at a rate of 1.5 gal/sq. to sand surfaced base or ply membrane.

**Surfacing:** Surfacing is Optional on granular surfaced field cap membranes.

Surfacing is Required for smooth or sanded surfaced field cap membranes. Refer to Underwriters Laboratories or Intertek Testing Services listings for

applicable fire classifications

Apply any coating listed in Table 4 above, or any Miami-Dade approved coating

system

**Maximum Design** 

**Pressure:** -45 psf. (See General Limitation #9.)

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**Deck Type 2I:** Steel, Insulated

**Deck Description:** 18-22 ga. Steel deck is secured to min. <sup>1</sup>/<sub>4</sub>" thick support

**System Type C(2):** Membrane fully adhered over mechanically fastened insulation.

All General and System Limitations apply.

**Vapor Barrier:** FM approved Self-Adhering, Cold-Applied, Hot-Applied or Torch-Applied base

(Optional) sheets.

One or more layers of any of the following insulations.

Base Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft <sup>2</sup>
H-Shield, Sopra-ISO r, M-Shield, ACFoam-II, Sopra-ISO s		
Minimum 1/4" thick	N/A	N/A
Middle Insulation Layer	<b>Insulation Fasteners</b>	Fastener
	(Table 3)	Density/ft <sup>2</sup>
H-Shield, Sopra-ISO r, M-Shield, ACFoam-II, Sopra-ISO s		
Minimum 1.4" thick	N/A	N/A
Top Insulation Layer	<b>Insulation Fasteners</b>	Fastener
	(Table 3)	Density/ft <sup>2</sup>
Sopraboard		
Minimum 1/8" thick	1, 6, 17, 19, 22 with approved plates	$1:2 \text{ ft}^2$

Note: First and second layer of insulation are loose laid with staggered joints. Top layer shall be mechanically attached with fasteners and density described above. Insulation panels listed are minimum sizes and dimensions; if larger panels are used the number of fasteners per board shall be increased maintaining the same fastener density (See Roofing Application Standard RAS 117 for fastening details).

**Base Sheet:** One layer of Sopralene Stick or Sopralene Flam Stick\*, self-adhered

\*Requires heat welded ply or cap sheet.

Ply Sheet: None

**Membrane:** One layer of Soprastar Stick, Elastophene Stick HR FR GR, Elastophene Stick FR

GR, self-adhered to sand surfaced base or ply membrane primed with Elastocol

500 or Elastocol Stick.

Or

One layer of Elastophene Flam GR, Elastophene Flam FR GR, Elastophene Flam LS FR GR, Elastophene Flam FR+ GR, Elastophene Flam HS FR GR, Soprastar Flam, Sopralene Flam 180 GR, Sopralene Flam 180 FR GR, Sopralene Flam 250 FR GR, Sopralene Flam 250 FR+ GR, Sopralene Flam 250 FR GR, Sopralene Flam 250 FR+ GR, Sopralene

TV Alu, heat welded



NOA No.: 13-0205.04 Expiration Date: 12/31/14 Approval Date: 07/25/13 Page 15 of 25 **Membrane:** Or

(Cont.) One layer of Elastophene GR, Elastophene FR GR, Elastophene LS FR GR,

Elastophene FR+ GR, Elastophene HS FR GR, Sopralene 180 FR GR, Sopralene 250 FR GR, adhered in hot asphalt at 25 lbs./sq. or applied in FM Adhesive, FM Adhesive (VOC), COLPLY Modified Adhesive or Soprastar Adhesive at a rate of

1.5 gal/sq. to sand surfaced base or ply membrane.

**Surfacing:** Surfacing is Optional on granular surfaced field cap membranes.

Surfacing is Required for smooth or sanded surfaced field cap membranes. Refer to Underwriters Laboratories or Intertek Testing Services listings for

applicable fire classifications

Apply any coating listed in Table 4 above, or any Miami-Dade approved coating

system

**Maximum Design** 

**Pressure:** -45 psf. (See General Limitation #9.)



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**Deck Type 2I:** Steel, Insulated

**Deck Description:** 18-22 ga. Steel deck is secured to min. <sup>1</sup>/<sub>4</sub>" thick support

**System Type C(3):** Membrane fully adhered over mechanically fastened insulation.

All General and System Limitations apply.

**Vapor Barrier:** FM approved Self-Adhering, Cold-Applied, Hot-Applied or Torch-Applied base

(Optional) sheets.

One or more layers of any of the following insulations.

Base Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft <sup>2</sup>
DensDeck		
Minimum 5/8" thick	N/A	N/A
Approved Perlite		
Minimum ¾" thick	N/A	N/A
Middle Insulation Layer	<b>Insulation Fasteners</b>	Fastener
·	(Table 3)	Density/ft <sup>2</sup>
H-Shield, Sopra-ISO r, M-Shield, ACFoam-II, S	Sopra-ISO s, ENRGY 3, Multi-Max I	FA-3
Minimum 1.4" thick	N/A	N/A
Top Insulation Layer	<b>Insulation Fasteners</b>	Fastener
	(Table 3)	Density/ft <sup>2</sup>
Sopraboard	` ,	·
Minimum 1/8" thick	1, 6, 17, 19, 22 with	1:2 ft <sup>2</sup>

Note: Top layer shall be mechanically attached with fasteners and density described above. Insulation panels listed are minimum sizes and dimensions; if larger panels are used the number of fasteners per board shall be increased maintaining the same fastener density (See Roofing Application Standard RAS 117 for fastening details).

**Base Sheet:** One layer of Sopralene Stick or Sopralene Flam Stick\*, self-adhered

\*Requires heat welded ply or cap sheet.

Ply Sheet: None

**Membrane:** One layer of Soprastar Stick, Elastophene Stick HR FR GR, Elastophene Stick FR

GR, self-adhered to sand surfaced base or ply membrane primed with Elastocol

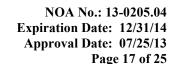
approved plates

500 or Elastocol Stick.

Or

One layer of Elastophene Flam GR, Elastophene Flam FR GR, Elastophene Flam LS FR GR, Elastophene Flam FR+ GR, Elastophene Flam HS FR GR, Soprastar Flam, Sopralene Flam 180 GR, Sopralene Flam 180 FR GR, Sopralene Flam 250 FR GR, Sopralene Flam 250 FR+ GR, Sopralast 50

TV Alu, heat welded





**Membrane:** Or

(Cont.) One layer of Elastophene GR, Elastophene FR GR, Elastophene LS FR GR,

Elastophene FR+ GR, Elastophene HS FR GR, Sopralene 180 FR GR, Sopralene 250 FR GR, adhered in hot asphalt at 25 lbs./sq. or applied in FM Adhesive, FM Adhesive (VOC), COLPLY Modified Adhesive or Soprastar Adhesive at a rate of

1.5 gal/sq. to sand surfaced base or ply membrane.

**Surfacing:** Surfacing is Optional on granular surfaced field cap membranes.

Surfacing is Required for smooth or sanded surfaced field cap membranes. Refer to Underwriters Laboratories or Intertek Testing Services listings for

applicable fire classifications

Apply any coating listed in Table 4 above, or any Miami-Dade approved coating

system

**Maximum Design** 

**Pressure:** -45 psf. (See General Limitation #9.)



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Steel, Insulated Deck Type 2I:

**Deck Description:** 18-22 ga. Steel deck is secured to min. <sup>1</sup>/<sub>4</sub>" thick support

Membrane fully adhered over mechanically fastened insulation. System Type C(4):

All General and System Limitations apply.

FM approved Self-Adhering, Cold-Applied, Hot-Applied or Torch-Applied base Vapor Barrier:

(Optional)

One or more layers of any of the following insulations.

**Base Insulation Layer Insulation Fasteners** Fastener Density/ft<sup>2</sup> (Table 3)

H-Shield, Sopra-ISO r, M-Shield, ACFoam-II, Sopra-ISO s, ENRGY 3, Multi-Max FA-3

Minimum 1.4" thick N/A N/A

**Top Insulation Layer Insulation Fasteners** Fastener Density/ft<sup>2</sup> (Table 3)

**DensDeck** 

1, 6, 17, 19, 22 with 1:2 ft<sup>2</sup> Minimum 1/4" thick

approved plates

Note: Top layer shall be mechanically attached with fasteners and density described above. Insulation panels listed are minimum sizes and dimensions; if larger panels are used the number of fasteners per board shall be increased maintaining the same fastener density (See Roofing Application Standard RAS 117 for fastening details).

Top Insulation shall be primed with ASTM D41 asphaltic primer or Elastocol **Primer:** 

Stick applied at 1 gal/sq.

**Base Sheet:** One layer of Sopralene Stick or Sopralene Flam Stick\*, self-adhered

\*Requires heat welded ply or cap sheet.

**Ply Sheet:** None

One layer of Soprastar Stick, Elastophene Stick HR FR GR, Elastophene Stick FR Membrane:

GR, self-adhered to sand surfaced base or ply membrane primed with Elastocol

500 or Elastocol Stick.

Or

One layer of Elastophene Flam GR, Elastophene Flam FR GR, Elastophene Flam LS FR GR, Elastophene Flam FR+ GR, Elastophene Flam HS FR GR, Soprastar Flam, Sopralene Flam 180 GR, Sopralene Flam 180 FR GR, Sopralene Flam 180 FR+ GR, Sopralene Flam 250 FR GR, Sopralene Flam 250 FR+ GR, Sopralast 50

TV Alu, heat welded

Or

One layer of Elastophene GR, Elastophene FR GR, Elastophene LS FR GR, Elastophene FR+ GR, Elastophene HS FR GR, Sopralene 180 FR GR, Sopralene 250 FR GR, adhered in hot asphalt at 25 lbs./sq. or applied in FM Adhesive, FM Adhesive (VOC), COLPLY Modified Adhesive or Soprastar Adhesive at a rate of 1.5 gal/sq. to sand surfaced base or ply membrane.

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**Surfacing:** Surfacing is Optional on granular surfaced field cap membranes.

Surfacing is Required for smooth or sanded surfaced field cap membranes. Refer to Underwriters Laboratories or Intertek Testing Services listings for

applicable fire classifications

Apply any coating listed in Table 4 above, or any Miami-Dade approved coating

system

**Maximum Design** 

**Pressure:** -45 psf. (See General Limitation #9.)



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**Deck Type 2I:** Steel, Insulated

**Deck Description:** 18-22 ga. Steel deck is secured to min. <sup>1</sup>/<sub>4</sub>" thick support

**System Type C(5):** Membrane fully adhered over mechanically fastened insulation.

All General and System Limitations apply.

**Primer:** Deck primed with ASTM D-41 primer.

One or more layers of any of the following insulations.

Insulation Layer Insulation Fasteners Fastener (Table 3) Fastener

ACFoam-II, Sopra-ISO s, Sopra-ISO r, M-Shield, H-Shield

Minimum 1.5" thick 8 with 6 (#12) 1:8 ft<sup>2</sup>

Note: Insulation layer shall be mechanically attached with fasteners and density described above. Insulation panels listed are minimum sizes and dimensions; if larger panels are used the number of fasteners per board shall be increased maintaining the same fastener density (See Roofing Application Standard RAS 117 for fastening details).

**Primer:** Elastocol 500 or Elastocol Stick applied at a rate of 0.5 gal/sq., to top surface of

any insulation, base or ply sheet prior to application of next layer.

**Base Layer:** One ply of Colvent SA self-adhered.

**Plv Sheet:** None

**Membrane:** One layer of Elastophene Flam GR, Elastophene Flam FR GR, Elastophene

Flam LS FR GR, Elastophene Flam FR+ GR, Elastophene Flam HS FR GR, Sopralene Flam 180 GR, Sopralene Flam 180 FR GR, Sopralene Flam 250 FR GR, Sopral

Sopralast 50 TV Alu, heat welded

Or

One layer of Soprastar Stick, Elastophene Stick HR FR GR, Elastophene Stick FR GR, self-adhered to sand surfaced base or ply membrane primed with

Elastocol 500 or Elastocol Stick applied at ½ gal/sq.

**Surfacing:** Surfacing is Optional on granular surfaced field cap membranes.

Surfacing is Required for smooth or sanded surfaced field cap membranes. Refer to Underwriters Laboratories or Intertek Testing Services listings for

applicable fire classifications

Apply any coating listed in Table 4 above, or any Miami-Dade approved coating

system.

**Maximum Design** 

**Pressure:** -45 psf. (See General Limitation #9.)



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**Deck Type 2I:** Steel, Insulated

**Deck Description:** 18-22 ga. Grade 80 Steel decking fastened 6" o.c. with Traxx/5 fasteners to

supports spaced maximum 6' o.c. Deck side laps are fastened 30" o.c. with

Traxx/1 fasteners.

**System Type C(6):** Membrane fully adhered over mechanically fastened insulation.

All General and System Limitations apply.

**Vapor Barrier:** FM approved Self-Adhering, Cold-Applied, Hot-Applied or Torch-Applied base

(Optional) sheets.

One or more layers of any of the following insulations.

Base Insulation Layer Insulation Fasteners Fastener

(Table 3) Density/ft<sup>2</sup>

H-Shield, Sopra-ISO r, M-Shield, ACFoam-II, Sopra-ISO s, ENRGY 3, Multi-Max FA-3

Minimum 1.4" thick N/A N/A

Top Insulation Layer Insulation Fasteners Fastener (Table 3) Fastener

**DensDeck** 

Minimum <sup>1</sup>/<sub>4</sub>" thick 17 (#14) with 21 1:1.78 ft<sup>2</sup>

Note: Top layer shall be mechanically attached with fasteners and density described above. Insulation panels listed are minimum sizes and dimensions; if larger panels are used the number of fasteners per board shall be increased maintaining the same fastener density (See Roofing Application Standard RAS 117 for fastening details).

**Primer:** Top Insulation shall be primed with ASTM D41 asphaltic primer or Elastocol

Stick applied at 1 gal/sq.

**Base Sheet:** One layer of Sopralene Stick or Sopralene Flam Stick\*, self-adhered

\*Requires heat welded ply or cap sheet.

Ply Sheet: None

**Membrane:** One layer of Soprastar Stick, Elastophene Stick HR FR GR, Elastophene Stick FR

GR, self-adhered to sand surfaced base or ply membrane primed with Elastocol

500 or Elastocol Stick.

Or

One layer of Elastophene Flam GR, Elastophene Flam FR GR, Elastophene Flam LS FR GR, Elastophene Flam FR+ GR, Elastophene Flam HS FR GR, Soprastar Flam, Sopralene Flam 180 GR, Sopralene Flam 180 FR GR, Sopralene Flam 250 FR GR, Sopralene Flam 250 FR+ GR, Sopralast 50

TV Alu, heat welded



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(Cont.) One layer of Elastophene GR, Elastophene FR GR, Elastophene LS FR GR,

Elastophene FR+ GR, Elastophene HS FR GR, Sopralene 180 FR GR, Sopralene 250 FR GR, adhered in hot asphalt at 25 lbs./sq. or applied in FM Adhesive, FM Adhesive (VOC), COLPLY Modified Adhesive or Soprastar Adhesive at a rate of

1.5 gal/sq. to sand surfaced base or ply membrane.

**Surfacing:** Surfacing is Optional on granular surfaced field cap membranes.

Surfacing is Required for smooth or sanded surfaced field cap membranes. Refer to Underwriters Laboratories or Intertek Testing Services listings for

applicable fire classifications

Apply any coating listed in Table 4 above, or any Miami-Dade approved coating

system

**Maximum Design** 

**Pressure:** -60 psf. (See General Limitation #7.)



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**Deck Type 2I:** Steel, Insulated

**Deck Description:** 18-22 ga. Grade 80 Steel decking fastened 6" o.c. with Traxx/5 fasteners to

supports spaced maximum 6' o.c. Deck side laps are fastened 30" o.c. with

Traxx/1 fasteners.

**System Type D:** All layers of insulation and base sheet simultaneously attached.

All General and System Limitations apply.

One or more layers of any of the following insulations.

Insulation Layer Insulation Fasteners Fastener (Table 3) Density/ft<sup>2</sup>

ACFoam-II, Sopra-ISO s, H-Shield, M-Shield, Sopra-ISO r, Multi-Max FA-3

Minimum 1.4" thick N/A N/A

Note: Insulation layer shall have preliminary attachment, prior to the installation of the base/anchor sheet, at a minimum application rate of two fasteners per board for insulation boards having no dimension greater than 4 ft., and four fasteners for any insulation board having no dimension greater than 8 ft. All layers of insulation and base sheet shall be simultaneously fastened. See base/anchor sheet below for fasteners and density.

**Base Sheet:** One ply of Soprafix [S], Soprafix Base 612, Soprafix [F], Soprafix Base 614,

fastened to the deck as described below:

**Fastening:** Attach base sheet using Soprema #14 MP Fasteners with 2" Seam Plates spaced

12" o.c. in the minimum 5" wide lap.

**Ply Sheet:** None.

**Membrane:** One layer of Soprastar Stick, Elastophene Stick HR FR GR, Elastophene Stick FR

GR, self-adhered to sand surfaced base or ply membrane primed with Elastocol 500

or Elastocol Stick.

**Surfacing:** Surfacing is Optional on granular surfaced field cap membranes.

Surfacing is Required for smooth or sanded surfaced field cap membranes. Refer to Underwriters Laboratories or Intertek Testing Services listings for

applicable fire classifications

Apply any coating listed in Table 4 above, or any Miami-Dade approved coating

system.

**Maximum Design** 

**Pressure:** -60 psf. (See General Limitation #7)

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#### STEEL DECK SYSTEM LIMITATIONS:

- 1. If mechanical attachment to the structural deck through the lightweight insulating concrete is proposed, a field withdrawal resistance testing shall be performed to determine equivalent or enhanced fastener patterns and density. All testing and fastening design shall be in compliance with Testing Application Standard TAS 105 and Roofing Application Standard RAS 117, calculations shall be signed and sealed by a Florida registered Professional Engineer, Registered Architect, or Registered Roof Consultant.
- 2. For steel deck application where specific deck construction is not referenced: The deck shall be a minimum 22 gage attached with 5/8" puddle welds with weld washers at every flute with maximum deck spans of 5 ft. o.c.

#### **GENERAL LIMITATIONS:**

- 1. Fire classification is not part of this acceptance; refer to a current Approved Roofing Materials Directory for fire ratings of this product.
- 2. Insulation may be installed in multiple layers. The first layer shall be attached in compliance with Product Control Approval guidelines. All other layers shall be adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq., or mechanically attached using the fastening pattern of the top layer
- 3. All standard panel sizes are acceptable for mechanical attachment. When applied in approved asphalt, panel size shall be 4' x 4' maximum.
- 4. An overlay and/or recovery board insulation panel is required on all applications over closed cell foam insulations when the base sheet is fully mopped. If no recovery board is used the base sheet shall be applied using spot mopping with approved asphalt, 12" diameter circles, 24" o.c.; or strip mopped 8" ribbons in three rows, one at each side lap and one down the center of the sheet allowing a continuous area of ventilation. Encircling of the strips is not acceptable. A 6" break shall be placed every 12' in each ribbon to allow cross ventilation. Asphalt application of either system shall be at a minimum rate of 12 lbs./sq.

## Note: Spot attached systems shall be limited to a maximum design pressure of -45 psf.

- 5. Fastener spacing for insulation attachment is based on a Minimum Characteristic Force (F') value of 275 lbf., as tested in compliance with Testing Application Standard TAS 105. If the fastener value, as field-tested, are below 275 lbf. Insulation attachment shall not be acceptable.
- 6. Fastener spacing for mechanical attachment of anchor/base sheet or membrane attachment is based on a minimum fastener resistance value in conjunction with the maximum design value listed within a specific system. Should the fastener resistance be less than that required, as determined by the Building Official, a revised fastener spacing, prepared, signed and sealed by a Florida registered Professional Engineer, Registered Architect, or Registered Roof Consultant may be submitted. Said revised fastener spacing shall utilize the withdrawal resistance value taken from Testing Application Standards TAS 105 and calculations in compliance with Roofing Application Standard RAS 117.
- 7. Perimeter and corner areas shall comply with the enhanced uplift pressure requirements of these areas. Fastener densities shall be increased for both insulation and base sheet as calculated in compliance with Roofing Application Standard RAS 117. Calculations prepared, signed and sealed by a Florida registered Professional Engineer, Registered Architect, or Registered Roof Consultant (When this limitation is specifically referred within this NOA, General Limitation #9 will not be applicable.)
- 8. All attachment and sizing of perimeter nailers, metal profile, and/or flashing termination designs shall conform to Roofing Application Standard RAS 111 and applicable wind load requirements.
- 9. The maximum designed pressure limitation listed shall be applicable to all roof pressure zones (i.e. field, perimeters, and corners). Neither rational analysis, nor extrapolation shall be permitted for enhanced fastening at enhanced pressure zones (i.e. perimeters, extended corners and corners). (When this limitation is specifically referred within this NOA, General Limitation #7 will not be applicable.)
- 10. All products listed herein shall have a quality assurance audit in accordance with the Florida Building Code and Rule 9N-3 of the Florida Administrative Code.

## END OF THIS ACCEPTANCE

MIAMI-DADE COUNTY
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